



Complete Summary

GUIDELINE TITLE

Conjunctivitis.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Ophthalmology Cornea/External Disease Panel, Preferred Practice Patterns Committee. Conjunctivitis. San Francisco (CA): American Academy of Ophthalmology (AAO); 2003. 25 p. [67 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Ophthalmology (AAO), Preferred Practice Patterns Committee, Cornea/External Disease. Conjunctivitis. San Francisco (CA): American Academy of Ophthalmology (AAO); 1998. 24 p.

All Preferred Practice Patterns are reviewed by their parent panel annually or earlier if developments warrant.

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SCOPE

DISEASE/CONDITION(S)

Conjunctivitis, other diseases of conjunctiva due to viruses and *Chlamydia*, and ophthalmia neonatorum due to gonococcus

GUIDELINE CATEGORY

Diagnosis
Management
Treatment

CLINICAL SPECIALTY

Ophthalmology

INTENDED USERS

Health Plans
Physicians

GUIDELINE OBJECTIVE(S)

To diagnose and manage patients with conjunctivitis in order to preserve visual function, minimize the spread of infectious disease, reduce or eliminate conjunctival inflammation and its complications, and restore patient comfort, by addressing the following goals:

- Establish the diagnosis of conjunctivitis, differentiating it from other causes of red eye
- Identify the cause of conjunctivitis
- Establish appropriate therapy
- Relieve discomfort and pain
- Prevent complications
- Prevent the spread of communicable diseases
- Educate and engage the patient in the management of the disease

TARGET POPULATION

Individuals of all ages who present with symptoms suggestive of conjunctivitis, such as red eye or discharge

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis

1. Comprehensive medical eye examination, including complete patient history
2. Eye examination, including measurement of visual acuity, external examination, and slit-lamp biomicroscopy
3. Diagnostic tests, including cultures, viral diagnostic tests, chlamydial tests, smears/cytology, biopsy and blood tests, when applicable

Treatment

1. Vasoconstrictor/antihistamine eye drops
2. Topical cromolyn
3. Systemic antihistamines
4. Topical steroids
5. Systemic immunosuppressive agents and steroids

Management

1. Follow-up
2. Counseling/referral, when applicable

MAJOR OUTCOMES CONSIDERED

- Eliminating or reducing signs and symptoms of conjunctivitis
- Restoring or maintaining normal visual function
- Detecting and treating the underlying systemic disease process when applicable

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A detailed literature search of articles in the English language was conducted in July 2002 on the subject of conjunctivitis for the years 1997 to 2002.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Ratings of strength of evidence

- I. Level I includes evidence obtained from at least one properly conducted, well-designed, randomized, controlled trial. It could include meta-analyses of randomized controlled trials.
- II. Level II includes evidence obtained from the following:
 - Well-designed controlled trials without randomization
 - Well-designed cohort or case-control analytic studies, preferably from more than one center
 - Multiple-time series with or without the intervention
- III. Level III includes evidence obtained from one of the following:
 - Descriptive studies
 - Case reports
 - Reports of expert committees/organization
 - Expert opinion (e.g., Preferred Practice Pattern panel consensus)

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The results of a literature search on the subject of conjunctivitis were reviewed by the Cornea/External Disease Panel and used to prepare the recommendations, which they rated in two ways. The panel first rated each recommendation according to its importance to the care process. This "importance to the care process" rating represents care that the panel thought would improve the quality of the patient's care in a meaningful way. The panel also rated each recommendation on the strength of the evidence in the available literature to support the recommendation made.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Ratings of importance to care process

Level A, most important
Level B, moderately important
Level C, relevant but not critical

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

These guidelines were reviewed by Council and approved by the Board of Trustees of the American Academy of Ophthalmology (September 2003). All *Preferred Practice Patterns* are reviewed by their parent panel annually or earlier if developments warrant and updated accordingly.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The ratings of importance to the care process (A, B, C) and the ratings for strength of evidence (I, II, III) are defined at the end of the "Major Recommendations" field.

Diagnosis

The initial evaluation of a patient should include the relevant aspects of the comprehensive medical eye evaluation. [A:III]

History

Questions about the following elements of the patient history may elicit helpful information:

- Symptoms and signs [A:III]
- Duration of symptoms [A:III]
- Unilateral or bilateral presentation [A:III]
- Character of discharge [A:III]
- Recent exposure to an infected individual [A:III]
- Trauma [A:III]
- Contact lens wear [A:III]
- Symptoms and signs potentially related to systemic diseases [A:III]
- Allergy, asthma, eczema [A:III]
- Use of topical and systemic medications [A:III]

The ocular history includes details about previous episodes of conjunctivitis [A:III] and previous ophthalmic surgery. [B:III]

The medical history takes into account the following:

- Compromised immune status [B:III]
- Prior systemic diseases [B:III]

The social history incorporates pertinent information about the patient's lifestyle, which may include smoking habits, [C:III] occupation and hobbies, [C:III] travel, [C:III] and sexual activity. [C:III]

Examination

The initial eye examination includes measurement of visual acuity, [A:III] external examination, and slit-lamp biomicroscopy.

The external examination should include the following elements:

- Regional lymphadenopathy [A:III]
- Skin [A:III]

- Abnormalities of the eyelids and adnexae [A:III]
- Conjunctiva [A:III]

The slit-lamp biomicroscopy should include careful evaluation of the following:

- Eyelid margins [A:III]
- Eyelashes [A:III]
- Lacrimal puncta and canaliculi [B:III]
- Tarsal and forniceal conjunctiva [A:III]
- Bulbar conjunctiva/limbus [A:III]
- Cornea [A:III]
- Anterior chamber/iris [A:III]
- Dye-staining pattern [A:III]

Diagnostic Tests

Cultures of the conjunctiva are indicated in all cases of suspected infectious neonatal conjunctivitis. [A:I] Smears for cytology and special stains (e.g., gram, giemsa) are recommended in cases of suspected infectious neonatal conjunctivitis and in cases of suspected gonococcal conjunctivitis in any age group. [A:II]

A biopsy of bulbar conjunctiva should be performed and a sample should be taken from an uninvolved area adjacent to the limbus in an eye with active inflammation when ocular cicatricial pemphigoid (OCP) is suspected. [A:III] In cases of suspected sebaceous gland carcinoma, a full-thickness lid biopsy is indicated. [A:II]

Treatment and Follow-up

Specific treatment and follow-up recommendations are contained in the main body of the original guideline document.

Frequency of follow-up visits is based on the severity of disease and treatment used. A follow-up visit should include an interval history, measurement of visual acuity, and slit-lamp biomicroscopy. [A:III] If corticosteroids are used in chronic or recurrent conjunctivitis, baseline and periodic measurement of intraocular pressure and pupillary dilation should be performed to evaluate for cataract and glaucoma. [A:III]

Associated abnormalities such as aqueous tear deficiency and meibomian gland dysfunction should be treated. [A:III]

Provider and Setting

Patients with conjunctivitis who are evaluated by non-ophthalmologist health care providers should be referred promptly to the ophthalmologist when any of the following occur: [A:III]

- Visual loss
- Moderate or severe pain
- Severe, purulent discharge

- Corneal involvement
- Conjunctival scarring
- Lack of response to therapy
- Recurrent episodes
- History of herpes simplex virus (HSV) eye disease

Counseling/Referral

When conjunctivitis is associated with sexually transmitted disease, patients, as well as their sexual partners, should be referred to an appropriate medical specialist. [A:III] In cases of ophthalmia neonatorum due to gonococcus, *Chlamydia*, and herpes simplex virus, the infant's parents should be referred to an appropriate pediatric specialist. [A:III] When conjunctivitis appears to be a manifestation of systemic disease, patients should be referred for evaluation by an appropriate medical specialist. [A:III]

Definitions:

Ratings of importance to care process

Level A, most important
 Level B, moderately important
 Level C, relevant but not critical

Ratings of strength of evidence

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CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Prompt, appropriate treatment, available for most types of conjunctivitis, spares the patient needless suffering. Early detection may also identify serious systemic disease. Early detection of conjunctivitis associated with neoplasms may be lifesaving.

POTENTIAL HARMS

- Long-term use of therapeutic contact lenses may be associated with an increased risk of microbial keratitis.
- There are complications associated with chronic steroid use.

QUALIFYING STATEMENTS

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- Preferred Practice Patterns provide guidance for the pattern of practice, not for the care of a particular individual. While they should generally meet the needs of most patients, they cannot possibly best meet the needs of all patients. Adherence to these Preferred Practice Patterns will not ensure a successful outcome in every situation. These practice patterns should not be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed at obtaining the best results. It may be necessary to approach different patients' needs in different ways. The physician must make the ultimate judgment about the propriety of the care of a particular patient in light of all of the circumstances presented by that patient. The American Academy of Ophthalmology is available to assist members in resolving ethical dilemmas that arise in the course of ophthalmic practice.
- Preferred Practice Patterns are not medical standards to be adhered to in all individual situations. The Academy specifically disclaims any and all liability for injury or other damages of any kind, from negligence or otherwise, for any and all claims that may arise out of the use of any recommendations or other information contained herein.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads
Quick Reference Guides/Physician Guides

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1998 Sep (revised 2003)

GUIDELINE DEVELOPER(S)

American Academy of Ophthalmology - Medical Specialty Society

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American Academy of Ophthalmology

GUIDELINE COMMITTEE

Preferred Practice Patterns Committee, Cornea/External Disease Panel

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The following authors have received compensation within the past 3 years up to and including June 2003 for consulting services regarding the equipment, process, or product presented or competing equipment, process, or product presented:

Jayne S. Weiss, MD: Alcon, Allergan - Reimbursement of travel expenses for presentation at meetings or courses.

Other authors have no financial interest in the equipment, process, or product presented or competing equipment, process, or product presented.

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GUIDELINE AVAILABILITY

Electronic copies: Available from the [American Academy of Ophthalmology \(AAO\) Web site](#).

Print copies: Available from American Academy of Ophthalmology, P.O. Box 7424, San Francisco, CA 94120-7424; Phone: (415) 561-8540.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Summary benchmarks for preferred practice patterns. San Francisco (CA): American Academy of Ophthalmology; 2006 Nov. 21 p.

Available in Portable Document Format (PDF) from the [American Academy of Ophthalmology \(AAO\) Web site](#).

Print copies: Available from American Academy of Ophthalmology, P.O. Box 7424, San Francisco, CA 94120-7424; telephone, (415) 561-8540.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on February 20, 1999. The information was verified by the guideline developer on April 23, 1999. This summary was updated by ECRI on April 9, 2004. The information was verified by the guideline developer on May 20, 2004.

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